

**STUDIES IN THE EUPHORIINA OF THE AMERICAS
(COLEOPTERA: SCARABAEIDAE)
II. STATUS OF NAMES IN *EUPHORIA*, TYPES AND
SYNONYMIES, WITH NOTES ON THE
SOUTH AMERICAN SPECIES¹**

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Abstract.—The nomenclature of taxa used in the genus *Euphoria* is reviewed, and numerous synonymies, based upon an examination of the available type material and approximately 20,000 specimens are proposed. Notes upon the types examined are presented, and lectotypes designated where necessary. A listing of the 125 names and variant spellings is presented, along with their current taxonomic status. Three entities are currently unrecognizable or unplaceable.

Comments upon the six recorded South American species are presented with their synonymies. Relevant literature is cited.

Key Words.—Coleoptera, Scarabaeidae, Cetoniinae, Euphoriina, *Euphoria*, nomenclature, types, lectotypes.

Material used in this study was borrowed from numerous institutions and individuals (*see* Part I). Most of this has been recently returned, with labels reflecting the taxonomic arrangement presented below. This paper is presented in order to permit understanding of the changes proposed. In addition to the taxa listed below, there are an additional half-dozen species yet to be described. The geminata species group is very confused and much more material is needed for a satisfactory resolution of the numerous problems encountered. There are probably a number of unrecognized, undescribed species included in the material examined from this group, but the range of variability within all species couldn't be determined with the material at hand. The conclusions presented below are based on an evaluation of material as was considered adequate to indicate morphological variability in the species involved.

The species groups proposed below are tentative, pending further analysis, but serve to group species sharing morphological characters, although the variable nature of the group makes definition difficult in some cases.

Literature citations given below are not comprehensive; only those dealing with synonymies or nomenclatorial changes are cited with a few exceptions.

An attempt was made to locate and examine all primary types. Where types were not located or examined, it has been so noted. No attempt was made to examine types of infrasubspecific taxa.

¹ Part I, Introduction and Generic Concepts, appeared in *The Coleopterist's Bulletin*, 42(1): 1–9, 1988.

EUPHORIA
FULGIDA GROUP
EUPHORIA FULGIDA FULGIDA

Cetonia fulgida Fabricius 1775: 48

Type locality "Carolina." Type in British Museum [not seen].

Erirhipis fulgida; Burmeister 1842: 393.

Euphoria fulgida; Horn 1880: 405.

Scarabaeus turchesinus Voet 1778: 8. Type locality not given. Type lost ? NEW SYNONYMY.

EUPHORIA FULGIDA LIMBALIS, NEW COMBINATION

Euphoria limbalis Fall 1905: 273. Type locality Enterprize, Florida. Type in MCZ [seen].

EUPHORIA FULGIDA FUSCOCYANEA

Euphoria (Erirhipis) fuscocyanea Casey 1915: 303. Type locality "Texas." Type in USNM [seen].

E. fulgida fuscocyanea; Brown 1930: 5.

EUPHORIA FULGIDA HOLOCHLORIS, NEW COMBINATION

Euphoria holochloris Fall 1905: 273. Type locality Fort Huachuca, Arizona. Type in MCZ; Lectotype here designated: male, with the following labels: Ft. Huachuca Ariz. [printed]/ holochloris TYPE [printed and handwritten]/ M.C.Z. Type 24876 [printed and handwritten, red]/ Lectotype *Euphoria holochloris* Fall 1905 By A. R. Hardy 1977 [handwritten, red].

E. (Erirhipis) holochloris] Casey 1915: 302

EUPHORIA SEPULCRALIS

Cetonia sepulcralis Fabricius 1801: 156. Type locality "Carolina." Type in Kiel [not seen].

Euphoria sepulcralis; Burmeister 1842: 376.

Euphoria (Euphoria) sepulcralis [sic]; Casey 1915: 321.

Cetonia lurida Olivier 1789: 43 [nec Fabricius]; 1790: 422.

Euphoria lurida; Schaum 1849: 266 [placement of Olivier's concept as *sepulcralis*].

Cetonia reich Gory & Percheron 1833: 58, 210. Type locality "Mexique." Type female in Geneva [seen].

Cetonia reichii; Burmeister 1842: 376 [as synonym of *sepulcralis*]; Bates 1889: 364 [as synonym of *leucographa*]; Casey 1915: 321 [as synonym of *sepulcralis*].

Euphoria (Euphoria) sepulcralis crinitula Casey 1915: 321. Type locality "Southern Illinois at St. Louis, Missouri." Type in USNM [seen]. NEW SYNONYMY.

Euphoria (Euphoria) sepulcralis cuprascens Casey 1915: 322. Type locality "Kansas (Medora)." Type in USNM [seen]. NEW SYNONYMY.

Euphoria (Euphoria) sepulcralis floridana Casey 1915: 321. Type locality "Florida (East coast, from Jacksonville to Palm Beach)." Type in USNM. Lectotype

here designated; male, with the following labels: 1) Jackson/ville Florida [handwritten] 2) CASEY/bequest/1925 [printed] 3) TYPE USNM/48677 [Printed, handwritten, red] 4) floridana/Csy [handwritten] 5) LECTOTYPE/Euphoria/sepulchralis/floridana Csy./By A. R. Hardy '78 [handwritten, red]. 14 paralectotypes. NEW SYNONYMY.

Euphoria (Euphoria) sepulchralis kansana Casey 1915: 321. Type locality Manhattan and Muncie, Kansas. Type in USNM. Lectotype here designated; male, with the following labels: 1) Manhattan/Ks [printed] 2) CASEY/bequest/1925 [printed] 3) kansana-3/PARATYPE USNM/48675 [printed, handwritten, red] 4) LECTOTYPE/Euphoria/sepulchralis/kansana Csy./By A. R. Hardy 1978 [handwritten, red]. 15 paralectotypes. NEW SYNONYMY.

Euphoria (Euphoria) appalachia Casey 1915: 322. Type locality Maryland to northern Alabama. Type in USNM. Lectotype here designated; male with the following labels: 1) Southern Pines/V-NC/A. H. Manee 09 [handwritten, printed] 2) CASEY/bequest/1925 [printed] 3) appalachia-2/PARATYPE USNM/48679 [handwritten, printed, red] 4) LECTOTYPE/ Euphoria/ appalachia/ By A. R. Hardy/ 1978 [handwritten, red]. 6 paralectotypes. NEW SYNONYMY.

Euphoria (Euphoria) scolopacea Casey 1915: 322. Type locality North Carolina to Florida. Type in USNM. Lectotype here designated; male with the following labels: 1) Black/ Mts. North Carolina/ [handwritten] 2) CASEY/ bequest/ 1925 [Printed] 3) TYPE USNM/ 48680 [printed, handwritten, red] 4) scolopacea/ Csy [handwritten] 5) LECTOTYPE/ Euphoria/ scolopacea/ CASEY=By/ A. R. Hardy [handwritten, red]. 25 paralectotypes. NEW SYNONYMY.

Euphoria (Euphoria) oxysternum Casey 1915: 323. Type locality Indiana. Type female in USNM. NEW SYNONYMY.

EUPHORIA SEPULCRALIS NITENS, NEW COMBINATION

Euphoria (Euphoria) nitens Casey 1915: 320. Type locality "Texas." Type in USNM. Lectotype here designated: male with the following labels: 1) melancholica/ Gory [handwritten, folded] 2) CASEY/ bequest/ 1925 [printed] 3) TYPE USNM/ 48683 [printed, handwritten, red] 4) nitens/ Csy [handwritten] 5) Euphoria/ nitens/ Casey [handwritten] 6) LECTOTYPE/ Euphoria/ nitens Csy./ By A. R. Hardy 1978 [handwritten, red]. (Casey identified three males and seven females as being in the type series. There are currently 14 specimens labelled as *nitens* in the Casey material at the USNM. One male specimen is of the dark color form formerly known as *E. kerni texana*, and so is here excluded from further consideration. Of the remaining 13, there are three males and 10 females. The three males (specimens numbered 1, 11, and 13) will be considered as part of the original cotypical series. The first specimen in the series is without a data label, but bears the label "melancholica Gory", and appears to be in Casey's hand. The remaining 10 (females) are all indistinguishable as to which were a part of the original series, and all have the label "Tex." For this reason, only the two remaining males were labeled as paralectotypes.

EUPHORIA SEPULCRALIS LEUCOGRAPHA, NEW COMBINATION

Cetonia leucographa Gory & Percheron 1833: 58, 208. Type locality "Mexico." Type in Paris? [Dejean colln., Oberthur colln.? Not seen.]

Euphoria leucographa; Burmeister 1842: 375.

Euphoria (Eirhipis) leucographa; Casey 1915: 305.

Euphoria limatula Janson 1881: 585. Type locality Guatemala. Type male in Leiden [seen]. NEW SYNONYMY.

Euphoria yucateca Bates 1889: 365. Type locality "Mexico, Temax in N. Yucatan." Type in BMNH. Lectotype here designated: male with the following labels: 1) SYN-/TYPE [white disc with blue edge, printed] 2) Temax,/ N. Yucatan,/ Gaumer [printed] 3) B.C.A., Col., II(2)./ *Euphoria/ yucateca* [printed] 4) LECTOTYPE/ *Euphoria/ yucateca/ Bates=By/ A. R. Hardy* [handwritten, red]. 8 paralectotypes. NEW SYNONYMY.

Euphoria submetallica Casey 1915: 319. Type locality "Panama (Nata)." Type in USNM [seen]. NEW SYNONYMY.

EUPHORIA SEPULCRALIS RUFINA, NEW COMBINATION

Cetonia rufina Gory & Percheron 1833: 58, 206. Type locality "Mexico." Type in Dupont Collection (part of the Oberthur Collection), Paris Museum [seen].

Euphoria rufina; Burmeister 1842: 375.

Euphoria leucographa var. *rufina*; Bates 1889: 364.

Euphoria (Eirhipis) rufina; Casey 1915: 306.

Euphoria (Eirhipis) testacea Casey 1915: 305. Type locality "New Mexico and Arizona (Baboquivari, Santa Rita and Huachuca Mts.)." Type in USNM. Lectotype here designated; male specimen with the following labels: 1) Huachuca Mts./ July 1905 Ariz [printed]; 2) CASEY/ bequest/ 1925 [printed]; 3) testacea-2/ PARATYPE USNM/ 48668 [printed, handwritten, red]; 4) Lectotype/ *Euphoria/ testacea Csy/ By A. R. Hardy 1978* [handwritten, red]. 7 paralectotypes. NEW SYNONYMY.

Euphoria subtomentosa var. *histrionella* Schaeffer 1907: 74 [nomen nudum].

EUPHORIA FASCIFERA FASCIFERA

Euryomia fascifera Leconte 1861: 336. Type locality "Cape San Lucas." Type male in MCZ [seen].

Euphoria fascifera; Horn 1880: 398, 404.

Euphoria (Euphoria) fascifera; Casey 1915: 324, 325.

EUPHORIA FASCIFERA TRAPEZIUM

Euphoria (Euphoria) fascifera trapezium Casey 1915: 324. Type locality "Arizona (Cochise Co.)." Type in USNM. Lectotype here designated; male with the following labels: 1) San Bernardino/ Ranch 3750 ft. [printed]; 2) CASEY/ bequest/ 1925 [printed]; 3) TYPE USNM/ 48684 [printed, handwritten, red]; 4) trapezium/ Csy [handwritten]; 5) LECTOTYPE/ *Euphoria/ trapezium/ Casey=By/ A. R. Hardy '78* [handwritten, red]. 2 paralectotypes.

EUPHORIA CANDEZEI

Euphoria candezei Janson 1875: 375. Type locality "Central America; Guatemala; San Domingo, Chontales, Nicaragua." Type male in Leiden [seen].

Euphoria belti Sharp 1877: 137. Type locality "Chontales, Nicaragua." Type in BMNH. Lectotype here designated: male specimen with the following labels: 1) SYN- / TYPE [blue edged disc, printed]; 2) Chontales/ Nicaragua/ T. Belt [printed]; 3) *Euphoria/ Belti/ Ind. typ./ D.S.* [handwritten]; 4) B.C.A.,

Col.,II(2)./ *Euphoria/ candezei* [inverted, printed]; 5) LECTOTYPE/ *Euphoria/ belti/ Sharp=By/ A. R. Hardy '78* [handwritten, red]. 2 paralectotypes.

HERBACEA GROUP

EUPHORIA LESUEURI

Cetonia Lesueur Gory & Percheron 1833: 58, 212. Type locality "Mexique."
Type female[?] in Geneva [seen].

Euphoria Lesueuri; Burmeister 1842: 372.

Euphoria lesueuri; Schenkling 1921: 340.

Cetonia Latreille Gory & Percheron 1833: 58, 213. Type locality "Mexique."
Type male in Geneva [seen].

Euphoria Latreillii; Burmeister 1842: 373.

Cetonia notulata Gory & Percheron 1833: 91, 244. Type locality "Mexique."
Type male[?] in Leiden [seen].

EUPHORIA STEINHEILI

Euphoria Steinheili Janson 1878: 303. Type locality "Panama." Type male in
Leiden [seen].

Euphoria steinheili; Bates 1889: 364.

EUPHORIA MONTICOLA

Euphoria monticola Bates 1889: 415; Schoch 1897: 474. Type locality "Mexico,
Canelas in Sia. Madre de Durango." Type female in Paris.

EUPHORIA WESTERMANNI

Cetonia Westermann Gory & Percheron 1833: 212. Type locality "Mexico." Type
female[?] in Geneva [seen].

Euphoria Westermanni; Burmeister 1842: 373.

Euphoria westermanni; Bates 1889: 363.

EUPHORIA HERBACEA

Cetonia herbacea Olivier 1789: 35; Burmeister 1842: 393 [in the treatment of
Erirhipis] Type locality "l'Amerique septentrionale." Type in Geneva? [not
seen].

Euphoria herbacea; Horn 1880: 399, 406.

Cetonia antennata Gory & Percheron 1833: 56, 177; Burmeister 1842: 391 [syn-
onymy with *pubera*]. Type locality "Philadelphie." Type female in Geneva
[seen].

Cetonia pubera Gyllenhal in Schoenherr 1817: 138, 53. Type locality "America
septentrionali." Type in Uppsala [not seen].

Erirhipis pubera; Burmeister 1842: 391; Schaum 1844: 375 [synonymy with *her-
bacea*]; Horn 1880: 408 [synonym of *herbacea*].

Erirhipis (Euphoria) herbacea var. *occidentalis* Knaus 1916: 84. Type locality
"Crawford Co. and Cherokee Co., Kansas." Type in Lawrence Kansas [not
seen]. NEW SYNONYMY.

EUPHORIA SUBMACULOSA

Cetonia submaculosa Gory & Percheron 1833: 58, 211. Type locality "Mexico."
Type female in Geneva [seen].

Erirhipis submaculosa; Burmeister 1842: 392.

Euphoria submaculosa; Bates 1889: 369; Schoch 1895: 125.

Euphoria (Erirhipis) submaculosa; Casey 1915: 304.

EUPHORIA HUMILIS

Euphoria humilis Blanchard 1850: 13. Type locality "Mexico." Type female in Paris [seen].

EUPHORIA IRIDESCENS

Cetonia iridescens Schaum 1841: 45. Type locality "Guatemala." Type female in Geneva [seen].

Erirhipis iridescens; Burmeister 1842: 388.

Euphoria iridescens; Bates 1889: 368.

EUPHORIA MYSTICA

Euphoria mystica Thomson 1878: 27. Type locality "Mexico." Type male in Paris [seen].

segmentata Guerin [in litt., ms. name?]

EUPHORIA CHONTALENSIS

Euphoria chontalensis Bates 1889: 368. Type locality "Nicaragua, Chontales." Type in BMNH. Lectotype here designated: specimen with the following labels: 1) SYN-/ TYPE [blue edged disc, press printed]; 2) Chontales/ Nicaragua/ T. Belt. [press]; 3) B.C.A., Col., II(2)./ Euphoria/ chontalensis, Bates [handwritten, printed]; 4) LECTOTYPE/ Euphoria/ chontalensis/ Bates=By/ A.R. Hardy '78 [handwritten, red]. 1 paralectotype [evidently 3 other specimens scattered].

EUPHORIA PRECARIA

Euphoria precaria Janson 1881: 583. Type locality "New Grenada" [Colombia]. Type male in Leiden [seen].

Euphoria morosa Janson 1881: 582. Type locality "Quito, Ecuador." Type male in Leiden [seen]. NEW SYNONYMY. [Under the first revisor rule (Recommendation 24A) page priority can be suspended in cases where improved stability would result. As first revisor, I select *precaria* as the valid name, since it was used in the Biologia Centrali-Americana, and *morosa* has not been used since it was originally described.]

Euphoria (Erirhipis) comminuta Casey 1915: 307. Type locality "Chiriqui" [Panama]. Type female in USNM [seen].

*INDA GROUP**EUPHORIA INDA*

Scarabaeus indus Linnaeus 1760: 352. Type locality "India." Type in Uppsala [fide Landin 1956: 12; not seen].

Trichius indus; Fabricius 1775: 40.

Cetonia inda; Pallas 1781: 25.

Erirhipis inda; Burmeister 1842: 389.

Euphoria inda; Horn 1880: 399, 407.

Euphoria Erirhipis inda; Casey 1915: 308.

Cetonia barbata Say 1823: 239; Burmeister 1842: 389 [under *Erirhipis inda*; new synonymy?]. Type locality "Council Bluffs on the Missouri and on the Arkansas." Type probably destroyed.

Cetonia brunnea Gory & Percheron 1833: 63, 267; Burmeister 1842: 389 [under *Erirhipis inda*; new synonymy?]. Type locality "l' Amerique boreale." Type not located. [There is a male specimen in Geneva which has been suggested as the possible type. The label reads: *Inda* Linne var./ Amer. Bor./ W. Murray [handwritten]. Horn & Kahle list a W. Murray Coleoptera and Lepidoptera collection from an individual who died in 1885. Since Gory & Percheron was published 52 years before this date, it is conceivable, although not likely, that this specimen was in Europe prior to 1833. There is no evidence of correspondence with J. LeConte, a contemporary, so it further seems unlikely that W. Murray was very active.]

Cetonia marilandica von Frölich 1792: 116; Burmeister 1842: 389 [under *Erirhipis inda*; new synonymy?]. Type locality unknown to me. Type in Munich? [not seen].

Euphoria inda var. *nigripennis* Klages 1894: 198. Type locality "Pittsburgh, Pa." Type in Cornell [not seen]. NEW SYNONYMY.

Euphoria (Erirhipidia) inda nigripennis; Casey 1915: 309.

Euphoria (Erirhipidia) rufobrunnea Casey 1915: 309. Type locality "New Mexico (fort Wingate), Arizona, Colorado (Boulder Co.) and Washington State." Type in USNM. Lectotype here designated: specimen with the following labels: 1) Ft. Wingate/ N. Mex. [printed]; 2) CASEY/ bequest/ 1925 [printed]; 3) rufobrunnea 20/ Paratype USNM/ 48674 [handwritten, printed; red]; 4) Lectotype/ *Euphoria*/ rufobrunnea Csy/ By A.R./ Hardy 1978 [handwritten, red]. 19 paralectotypes. NEW SYNONYMY.

EUPHORIA HIRTIPES

Euphoria hirtipes Horn 1880: 398, 401. Type locality "Dodge co., Neb." Type in MCZ. Lectotype here designated: female[?] specimen with the following labels: 1) Dodge Co. Nebr. [printed]; 2) Type no. 3708 *Euphoria hirtipes* G. H. Horn [handwritten, printed; red]; 3) *E. hirtipes* Horn [handwritten, inverted; appears to be Horn's hand]; 4) Lectotype *Euphoria hirtipes* Horn 1880 by A. R. Hardy 1977 [handwritten, red] [This specimen seems, on the basis of measurements, to be the male as described by Horn]. 1 paralectotype.

Euphoriaspis hirtipes; Casey 1915: 298, 333.

EUPHORIA BASALIS

Cetonia basalis Gory & Percheron 1833: 64, 274. Type locality "Mexique." Type male in Geneva [seen].

Euphoria basalis; Burmeister 1842: 380.

Euphoria (Euphoria) basalis; Casey 1915: 324, 325.

Euphoria (Euphoria) basalis crinicauda; Casey 1915: 324, 325. Type locality "Mexico (Guerrero)." Type in USNM. Lectotype here designated: male with the following labels: 1) Guer. [printed]; 2) CASEY/ bequest/ 1925 [printed]; 3)

crinicauda-4/ PARATYPE USNM/ 48685 [printed, red]; 4) LECTOTYPE/ Euphoria/ basalis/ crinicauda Csy./ By A. R. Hardy '78 [handwritten, red].

HISTRIONICA GROUP
EUPHORIA HISTRIONICA

Euphoria histrionica Thomson 1878: 27. Type locality "Mexico." Type male in Paris [seen].

Euphoria (Euphorhipis) histrionica; Casey 1915: 315.

Euphoria histrionica var. *sonorae* Bates 1889: 374. Type locality "Sonora." Type in BMNH [? not seen]. NEW SYNONYMY.

Euphoria sonorae; Casey 1915: 315.

Euphoria (Euphorhipis) scabiosa Casey 1915: 316. Type locality "Arizona (Southern)." Type in USNM. Lectotype here designated: female with the following labels: 1) Ariz. [printed]; 2) CASEY/ bequest/ 1925 [printed]; 3) TYPE USNM/ 48673 [handwritten, printed, red]; 4) scabiosa/ Csy [handwritten]; 5) Euphoria/ scabiosa/ Casey [handwritten]; 6) LECTOTYPE/ Euphoria/ scabiosa Csy./ By A. R. Hardy 1978 [handwritten, red]. 1 paralectotype. NEW SYNONYMY.

EUPHORIA SUBTOMENTOSA

Cetonia tomentosa Steven [nomen nudum]. Mannerheim indicates that *Cetonia tomentosa* Steven was never named by Steven, the name was given by Sturm, which is how Dejean carries it (1837: 192). Because of homonymy with *Cetonia tomentosa* Klug (= *Anoplochilus tomentosus*), Dejean cites the name as *subtomentosa* Hope for replacement. This name evidently was never validated, and *subtomentosa* should be credited to Dejean, not Mannerheim (see below).

Cetonia tomentosa Sturm [nomen nudum].

Cetonia tomentosa Gory & Percheron 1833: 64, 278 [preoccupied; nec Klug; see Gory & Percheron 1833: 63, 139, 266]. Type locality "Mexique." Type female[?] in Geneva [seen].

Cetonia subtomentosa Hope [nomen nudum?].

Cetonia subtomentosa Dejean 1837: 192 [replacement for *tomentosa* Sturm, = *tomentosa* Gory & Percheron].

Erirhipis subtomentosa; Burmeister 1842: 390.

Euphoria subtomentosa; Bates 1889: 373, 416.

EUPHORIA DEVULSA

Euphoria devulsa Horn 1880: 398, 402. Type locality "San Antonio, Texas." Type in MCZ. Lectotype here designated: male specimen with the following labels: 1) Tex. [printed]; 2) Type No. 3709 Euphoria devulsa G. H. Horn [handwritten, printed, red]; 3) E. devulsa Horn [inverted, handwritten; Horn's hand?]; 4) Lectotype Euphoria devulsa Horn 1880 By A. R. Hardy 1977 [handwritten, red]. No paralectotypes seen.

Euphoria (Isorhipina) devulsa; Casey 1915: 331, 332.

EUPHORIA LINEOLIGERA

Euphoria lineoligera Blanchard 1850: 13. Type locality "Mexico." Type in Paris [seen].

Euphoria (Isorhipina) lineoligera "Bates"; Casey 1915: 330.

Euphoria lineogera; Schoch 1895: 124 [error].

Euphoria xanthomelas Thomson 1878: 26. Type locality "Mexico." Type in Paris [seen].

EUPHORIA BIGUTTATA

Cetonia Bi-Guttata Gory & Percheron 1833: 64, 274. Type locality "Mexique." Type female in Geneva [seen].

Euphoria biguttata; Burmeister 1842: 384.

Euphoria (Isorhipina) biguttata; Casey 1915: 329.

Euphoria (Isorhipina) biguttata binoculata Casey 1915: 330. Type locality "Mexico (Guerrero)." Type in USNM. Lectotype here designated: male [?] with the following labels: 1) Guer. [printed]; 2) CASEY/ bequest/ 1925 [printed]; 3) TYPE USNM/ 48686 [handwritten, printed, red]; 4) binoculata/ Csy [handwritten]; 5) LECTOTYPE/ Euphoria/ biguttata/ binoculata/ CASEY=by/ A.R. Hardy '78 [handwritten, red]. 2 paralectotypes. NEW SYNONYMY.

Euphoria (Isorhipina) biguttata biplagiata Casey 1915: 330. Type locality "Guatemala." Type in USNM. Lectotype here designated: male[?] with the following labels: 1) G.T. [handwritten]; 2) CASEY/ bequest/ 1925 [printed]; 3) biplagiata-2/ PARATYPA USNM/ 48687 [handwritten, printed, red]; 4) LECTOTYPE/ Euphoria/ biguttata/ biplagiata/ CASEY=By/ A.R. Hardy '78 [handwritten, red]. 2 paralectotypes. NEW SYNONYMY.

EUPHORIA CANESCENS

Cetonia canescens Gory & Percheron 1833: 64, 277. Type locality "Mexique." Type female[?] in Geneva [seen].

Euphoria canescens; Burmeister 1842: 383.

Euphoria (Isorhipina) canescens; Casey 1915: 336.

Euphoria (Isorhipina) solidula Casey 1915: 329. Type locality "Guatemala" [label on type reads: Nebaj, Quiche, Guatemala]. Type male in USNM [seen]. NEW SYNONYMY.

EUPHORIA LEUCOPYGE

Euphoria leucopyge Bates 1889: 366. Type locality "Mexico, S.L.P.; Alamos; Ventanas in Dgo." Type in BMNH. Lectotype here designated: specimen with the following labels: 1) SYN-/ TYPE [printed, blue edged disc]; 2) Type [printed, red edged disc, inverted]; 3) Hacienda de/ Bleados,/ S. Luis Potosi./ Dr. Palmer. [printed]; 4) Euphoria/ leucopyge/ Bates [handwritten]; 5) B.C.A., Col., II(2)./ Euphoria [printed, inverted]; 6) LECTOTYPE/ Euphoria/ leucopyge/ Bates=By/ A.R. Hardy '78 [handwritten, red]. 1 paralectotype.

Euphoria leucopyga; Schoch 1895: 125 [error].

EUPHORIA DIMIDIATA

Cetonia dimidiata Gory & Percheron 1833: 64, 275. Type locality "Mexique." Type male in Geneva [seen].

Euphoria dimidiata; Burmeister 1842: 380.

Euphoria (Isorhipina) dimidiata; Casey 1915: 331.

PULCHELLA GROUP
EUPHORIA PULCHELLA

- Cetonia pulchella* Gory & Percheron 1833: 64, 279. Type locality "Mexique."
Type male in Geneva [seen].
- Euphoria pulchella*; Burmeister 1842: 381.
- Euphoria pulchella*; Schoch 1895: 123 [error].
- Euphoria (Isorhipina) pulchella*; Casey 1915: 327.
- Cetonia ferrugata* Gory & Percheron 1833: 64, 276. Type locality "Mexique."
Type female[?] in Geneva [seen].
- Cetonia montesuma* Gory & Percheron 1833: 64, 277. Type locality "Mexique."
Type from "Colln. Children" not located, presumed lost.
- Cetonia montezuma*; Burmeister 1842: 382.
- Cetonia children* Gory & Percheron 1833: 64, 275. Type locality "Mexique."
Type from "Colln. Children" not located, presumed lost. NEW SYNONYMY.
- Euphoria childrenii*; Burmeister 1842: 382.
- Euphoria childreni*; Bates 1889: 416.
- Euphoria (Isorhipina) childreni*; Casey 1915: 328, 331.
- Cetonia thelasco* Gory & Percheron 1833: 64, 279. Type locality "Mexique."
Type from "Colln. Children" not located, presumed lost. NEW SYNONYMY.
- Euphoria (Isorhipina) thelasco*; Casey 1915: 327.

EUPHORIA KERNI

- Euphoria Cernii* Haldeman 1852: 374. Type locality not given. Type male in MCZ [seen] [unnecessary emendation of patronomic "Kern"].
- Euphoria kerni*; Bates 1889: 374; Schoch 1895: 122.
- Euphoria (Haplophoria) kerni*; Casey 1915: 313.
- Euphoria Clarkii* LeConte 1853: 441. Type locality Texas. Type female in MCZ [seen]. NEW SYNONYMY.
- Euphoria kerni* var. *Clarkii*; Horn 1880: 402.
- Euphoria texana* Schaufuss 1863: 113. Type locality Texas [?]. Type location unknown to me.
- Euphoria (Haplophoria) texana*; Casey 1915: 313.
- Euphoria kerni* var. *texana*; Schenkling 1921: 339.
- Euphoria (Haplophoria) wichitana* Casey 1915: 312. Type locality "Kansas."
Type female in USNM [seen]. NEW SYNONYMY.
- Euphoria (Haplophoria) retusa* Casey 1915: 311. Type locality "Mexico." Type male in USNM [seen]. NEW SYNONYMY.
- Euphoria (Haplophoria) connivens* Casey 1915: 312. Type locality "Texas & Arizona." Type in USNM. Lectotype here designated: male specimen with the following labels: 1) Tex [printed]; 2) CASEY/ bequest/ 1925 [printed]; 3) TYPE USNM/ 48671 [handwritten, printed, red]; 4) connivens/ Csy [handwritten]; 5) Euphoria/ connivens/ Casey [handwritten]; 6) LECTOTYPE/ Euphoria/ connivens Csy/ By A. R. Hardy 1978 [handwritten, red]. NEW SYNONYMY.

EUPHORIA DISCICOLLIS, NEW COMBINATION

- Stephanucha discicollis* Dejean 1837: 192 [nomen nudum].
- Stephanucha discicollis* Thomson 1878: 28. Type locality "Amer. bor." Type male[?] in Paris [seen].

Stephanucha atrata Dejean 1837: 192 [nomen nudum].

Stephanucha discicollis var. *atrata* Thomson 1878: 28. Type locality "Amer. bor." Type in Paris[?] [not seen]. NEW SYNONYMY.

Euphoria aestuosa Horn 1880: 398, 400. Type locality "Kansas." Type female in MCZ [seen]. NEW SYNONYMY.

Euphoria (Haplophoria) aestuosa; Casey 1915: 314.

Euphoriaspis aestuosa; Blackwelder 1939: 55.

GEMINATA GROUP
EUPHORIA GEMINATA

Cetonia geminata Chevrolat 1835: 107. Type locality "Tampico." Type male in Leiden [seen]. [There are two examples in the Leiden Museum from the Chevrolat material, one labelled "Vera Cruz," and the other "Tampico." The specimen labelled "Tampico" was considered to be the type.]

Erirhipis geminata; Burmeister 1842: 386.

Euphoria geminata; Bates 1889: 373.

Euphoria (Rhipiphoria) geminata; Casey 1915: 317.

Cetonia cheniaci Laporte; Burmeister 1842: 386. [Nomen nudum?]. Type locality and location of type not known to me.

EUPHORIA LEPROSA

Euphoria leprosa Burmeister 1842: 379. Type locality "Mexico." Type location unknown to me.

EUPHORIA EXIMA

Euphoria exima Bates 1889: 372. Type locality "Costa Rica." Type in BMNH. Lectotype here designated: male with the following labels: 1) SYN-/TYPE [printed, blue edged disc]; 2) Type [printed, red edged disc, inverted]; 3) Costa Rica [printed]; 4) Salle Coll [printed]; 5) 1340 [printed, green, inverted]; 6) Euphoria/ exima/ Bates [handwritten]; 7) B.C.A., Col., II(2)./ Euphoria [printed, inverted]; 8) LECTOTYPE/ Euphoria/ exima/ Bates=By/ A.R. Hardy '78 [handwritten, red]. The other specimen from the cotypical series not located.

EUPHORIA SCHOTTI

Cetonia vestita Gory & Percheron 1833: 63, 271 (nec Say 1825: 201). Type locality "Mexico" Dejean Collection, Oberthur collection, Paris [seen]. NEW SYNONYMY.

Erirhipis vestita; Burmeister 1842: 387.

Euphoria vestita; Bates 1889: 371.

Cetonia irregularis Gory & Percheron 1833: 63, 272 (nec Olivier 1789: 6, 51, 62). Type locality "Mexique." Type in Hope collection, Oxford [not seen]?

Euphoria schotti LeConte 1853: 441. Type locality "Eagle Pass." Type in MCZ. Lectotype here designated: male with the following labels 1) [red disc]; 2) schotti 3 [handwritten]; 3) Lectotype E. schotti LeC. by A.R. Hardy 1977. 2 paralectotypes.

Euphoria (Erirhipidia) schotti; Casey 1915: 309, 318.

EUPHORIA AVITA

Euphoria avita Janson 1881: 584. Type locality Guatemala. Type in Leiden Museum [seen].

Euphoria (Haplophoria) longula Casey 1915: 314. Type locality "Honduras (San Pedro Sula)." Type in USNM [seen]. NEW SYNONYMY.

EUPHORIA FULVEOLA

Euphoria fulveola Bates 1189: 370. Type locality "Mexico, Zacualtipan in Hidalgo, Oaxaca." Type in BMNH. Lectotype here designated, specimen with the following labels: 1) SYN-/TYPE [blue edged disc, press printed]; 2) Oaxaca./ Mexico./ Hoeg. [press printed]; 3) Euphoria/ fulveola/ Bates [handwritten]; 4) B.C.A., Col., II(2)./ Euphoria [press printed, inverted]; 5) LECTOTYPE/ Euphoria/fulveola/Bates=By/A.R. Hardy '78 [red, handwritten]. 2 paralectotypes.

Euphoria nigriventris Bates 1889: 371. Type locality "Mexico, Peras, Etlá, Jalapa." Type in BMNH. Lectotype here designated: male with the following labels; 1) SYN /TYPE [blue edged disc, press printed]; 2) Jalapa./ Mexico./ Hoeg [press printed]. 3) B.C.A., Col., II(2)./ Euphoria/nigriventris/Bates [press printed, handwritten]; 4) LECTOTYPE/ Euphoria/nigriventris/Bates=By/A.R. Hardy '78 [red, handwritten]. 3 paralectotypes (4 missing). NEW SYNONYMY.

EUPHORIA QUADRICOLLIS

Euphoria quadricollis Bates 1889: 371. Type locality "Durango City." Type in BMNH. Lectotype here designated, male with the following labels: 1) SYN-/TYPE [blue edged disc, press printed]; 2) Type [red-edged disc, press printed, inverted]; 3) Durango City/Mexico./Höge. [press printed]; 4) Euphoria/ quadricollis/ Bates ♂ [handwritten]; 5) B.C.A., Col., II(2)./ Euphoria [press printed, inverted]; 6) LECTOTYPE/ Euphoria/quadricollis/Bates=By/A.R. Hardy '78 [red, handwritten]. Second specimen may be lost.

Euphoria arizonica Schaeffer 1907: 15. Type locality "Huachuca Mts., Az." Type in USNM. Lectotype here designated, male with the following labels: 1) Type [red, press printed, genitalia glued on]; 2) Palmerly/Cochise Co./July. Ariz. [handwritten and press printed] 3) BROOKLYN/MUSEUM/COLL, 1929 [press printed]. 4) Catal. No. /1351 [handwritten and press printed]; 5) Cotype/No. 42588/ U.S.N.M. [red, press printed and handwritten]; 6) Euphoria/arizonica/ Schaf. [handwritten]; 7) LECTOTYPE/ Euphoria/arizonica Schf./By A.R. Hardy 1979 [red, handwritten]. NEW SYNONYMY.

EUPHORIA ATRA

Euphoria atra Bates 1889: 371. Type locality "Mexico, Peras, Oaxaca." Type in BMNH. Lectotype here designated, male with the following labels: 1) SYN-/TYPE [blue edged disc, press printed]; 2) Oaxaca./ Mexico/ Hoeg. [press printed]; 3) B.C.A., Col., II(2)./Euphoria/atra, Bates [press printed and handwritten]; 6) LECTOTYPE/ Euphoria/atra/Bates=By/A.R. Hardy '78 [red, handwritten]. 1 paralectotype, one other BMNH specimen, believed to not be a part of the co-typical series, labelled "Oajaca" Mexico.

EUPHORIA CASSELBERRYI

Euphoria casselberryi Robinson 1937: 163. Type locality "Davis Mountains Texas." Type in USNM.

INCERTAE SEDIS

subguttata Burmeister

melancholica (Gory & Percheron) [= *lurida* or *nitens*?]

segmentata Guerin [ms. name?]

SOUTH AMERICAN SPECIES

Of the six species of *Euphoria* (with recognized synonyms) recorded as restricted to South America, one was not present in the material examined (*E. trivittata* Nonfried), and is apparently known only from the type material. I felt that a comprehensive review of the South American fauna should await the accumulation of more material. Several of the species examined (*boliviensis* Blanchard; *lurida* Fabricius; *punicea* Janson), have not been verified by the examination of type material. Some species show close affinities to species treated here. *E. punicea*, as mentioned by Janson (1881: 584), is close to *steinheili*, and I believe may be a synonym of that species. *Euphoria boliviensis* is related to *subtomentosa*, and *lurida* to *sepulchralis*. *Euphoria acerba* Janson (type examined) is a valid species, resembling, as stated by the author, *E. leseuri* Gory & Percheron.

The South American species:

E. abreona Janson 1878: 304; Colombia

E. acerba Janson 1881: 582; Ecuador

E. boliviensis Blanchard 1850: 13; Bolivia
andina Schein 1950: 273

E. lurida (Fabricius) 1775: 49; Brazil, Argentina

adpersa (Weber 1801: 71)

bivittata (Gory & Percheron 1833: 58, 207)

fasciolata Eschscholtz 1822: 25

rufescens (Gory & Percheron 1833: 68)

sordens (Linnaeus 1790: 1573)

E. punicea Janson 1881: 584; Ecuador

E. trivittata Nonfried 1894: 130; Ecuador

STATUS OF NAMES IN EUPHORIINA

In the history of Euphoriina, there have been many names used in various genera. The following list is presented as an aid to placement of these names.

abronea Janson

valid- S. America

acerba Janson

valid- S. America

adpersa Weber

=*lurida* (in Blackwelder)

aestuosa Horn

=*discicollis* Thomson

andina Schein

=*boliviensis* (in Martinez 1957)

antennata Gory & Percheron

=*herbacea* (Leng)

appalachia Casey

=*sepulchralis sepulchralis*

areata Fabricius

Stephanucha

arizonica Schaeffer

=*quadricillis*

<i>atra</i> Bates	valid
<i>avita</i> Janson	valid
<i>barbata</i> Say	= <i>inda</i> (in Leng)
<i>basalis</i> Gory & Percheron	valid
<i>belti</i> Sharp	= <i>candezei</i>
<i>biguttata</i> Gory & Percheron	valid
<i>binoculata</i> Casey	= <i>biguttata</i>
<i>biplagiata</i> Casey	= <i>biguttata</i>
<i>bispinis</i> Bates	<i>Stephanucha</i>
<i>bivittata</i> Gory & Percheron	= <i>lurida</i>
<i>boliviensis</i> Blanchard	valid- S. America
<i>brunnea</i> Gory & Percheron	= <i>inda</i>
<i>californica</i> LeConte	= <i>Oxycetonia jucunda</i>
<i>candezei</i> Janson	valid
<i>canescens</i> Gory & Percheron	valid
<i>casselberryi</i> Robinson	valid
<i>cerni</i> Haldeman	= <i>kerni</i>
<i>chapini</i> Cartwright	<i>Chlorixanthe</i>
<i>cheniaci</i> Laporte	= <i>geminata</i> (in Casey)
<i>childern</i> Gory & Percheron	= <i>pulchella</i>
<i>childreni</i> Gory & Percheron	= <i>pulchella</i>
<i>chontalensis</i> Bates	valid
<i>clarki</i> LeConte	= <i>kerni</i>
<i>comminuta</i> Casey	= <i>precaria</i>
<i>connivens</i> Casey	= <i>kerni</i>
<i>crinicauda</i> Casey	= <i>basalis</i>
<i>crinitula</i> Casey	= <i>sepulchralis sepulchralis</i>
<i>cuprascens</i> Casey	= <i>sepulchralis sepulchralis</i>
<i>devulsa</i> Horn	valid
<i>dimidiata</i> Gory & Percheron	valid
<i>discicollis</i> Thomson	valid
<i>exima</i> Bates	valid
<i>fascifera</i> LeConte	valid
<i>fasciolata</i> Escholtz	= <i>lurida</i>
<i>ferrugata</i> Gory & Percheron	= <i>pulchella</i>
<i>flavoviridis</i> Thomson	<i>Chlorixanthe</i>
<i>floridana</i> Casey	= <i>sepulchralis sepulchralis</i>
<i>fulgida</i> Fabricius	valid
<i>fulgida</i> var. <i>schwarzi</i> AUTHOR	= <i>fulgida limbalis</i>
<i>fulveola</i> Bates	valid
<i>fuscocyanea</i> Casey	valid- ssp. <i>fulgida</i>
<i>geminata</i> Chevrolat	valid
<i>hera</i> Burmeister	<i>Euphoriopsis</i>
<i>herbacea</i> Olivier	valid
<i>hirta</i> Fabricius	= <i>Tropinota</i>
<i>hirtella</i> Linnaeus	= <i>Tropinota</i>
<i>hirtipes</i> Horn	valid
<i>histrionella</i> Schaeffer	= <i>sepulchralis rufina</i>

<i>histrionica</i> Thomson	valid
<i>holochloris</i> Fall	valid- ssp. <i>fulgida</i>
<i>humilis</i> Blanchard	valid
<i>inda</i> Linnaeus	valid
<i>insignis</i> Casey	= <i>Oxythyrea funesta</i>
<i>iridescens</i> Schaum	valid
<i>irregularis</i> Gory & Percheron	= <i>schotti</i>
<i>kansana</i> Casey	= <i>sepulchralis sepulchralis</i>
<i>kerni</i> Haldeman	valid
<i>latreillei</i> Gory & Percheron	= <i>leseuri</i>
<i>leprosa</i> Burmeister	valid
<i>leseuri</i> Gory & Percheron	valid
<i>leucographa</i> Gory & Percheron	valid- ssp. <i>sepulchralis</i>
<i>leucopyge</i> Bates	valid
<i>limatula</i> Janson	= <i>sepulchralis leucographa</i>
<i>limbalis</i> Fall	valid- ssp. <i>fulgida</i>
<i>lineoligera</i> Blanchard	valid
<i>longula</i> Casey	= <i>avita</i>
<i>lurida</i> Fabricius	valid
<i>lurida</i> Olivier	= <i>sepulchralis sepulchralis</i>
<i>marilandica</i> von Frölich	= <i>inda</i>
<i>melancholica</i> Gory & Percheron	= <i>lurida</i> or <i>nitens</i>
<i>montesuma</i> Gory & Percheron	= <i>pulchella</i>
<i>monticola</i> Bates	valid
<i>morosa</i> Janson	= <i>precaria</i>
<i>mystica</i> Thomson	valid
<i>nigripennis</i> Klages	= <i>inda</i>
<i>nigriventris</i> Bates	= <i>fulveola</i>
<i>nitens</i> Casey	valid- ssp. <i>sepulchralis</i>
<i>notulata</i> Gory & Percheron	= <i>leseuri</i>
<i>occidentalis</i> Knaus	= <i>herbacea</i>
<i>oxystemum</i> Casey	= <i>sepulchralis sepulchralis</i>
<i>pilipennis</i> Kraatz	<i>Stephanucha</i>
<i>precaria</i> Janson	valid
<i>pubera</i> Gyllenhal	= <i>herbacea</i>
<i>pulchella</i> Gory & Percheron	valid
<i>punicea</i> Janson	valid- S. America
<i>quadricollis</i> Bates	valid
<i>reichi</i> Gory & Percheron	= <i>sepulchralis sepulchralis</i>
<i>retusa</i> Casey	= <i>kerni</i>
<i>refescens</i> Gory & Percheron	= <i>lurida</i>
<i>rufina</i> Gory & Percheron	valid- ssp. <i>sepulchralis</i>
<i>rufobrunnea</i> Casey	= <i>inda</i>
<i>scabiosa</i> Casey	= <i>histrionica</i>
<i>schotti</i> LeConte	valid
<i>scolopacea</i> Casey	= <i>sepulchralis sepulchralis</i>
<i>sepulchralis</i> Fabricius	valid
<i>solidula</i> Casey	= <i>canescens</i>

<i>sonorae</i> Bates	= <i>histrionica</i>
<i>sordens</i> Linnaeus	= <i>lurida</i>
<i>steinheili</i> Janson	valid
<i>subguttata</i> Burmeister	Incertae sedis
<i>submaculosa</i> Gory & Percheron	valid
<i>submetallica</i> Casey	= <i>sepulchralis leucographa</i>
<i>subtomentosa</i> Dejean	valid
<i>testacea</i> Casey	= <i>sepulchralis rufina</i>
<i>texana</i> Schauf [COMPLETE NAME]	= <i>kerni</i>
<i>thelasco</i> Gory & Percheron	= <i>pulchella</i>
<i>thoracica</i> Casey	<i>Stephanucha</i>
<i>tomentosa</i> mannerheim	= <i>subtomentosa</i>
<i>trapezium</i> Casey	valid- ssp. <i>fascifera</i>
<i>trivittata</i> Nonfried	valid- S. America
<i>verticalis</i> Horn	<i>Stephanucha</i>
<i>vestita</i> Gory & Percheron	= <i>schotti</i>
<i>vestita</i> Say	= <i>Tropinota hirta</i>
<i>westermanni</i> Gory & Percheron	valid
<i>wichitana</i> Casey	= <i>kerni</i>
<i>xanthomelas</i> Thomson	= <i>lineoligera</i>
<i>yucateca</i> Bates	= <i>sepulchralis leucographa</i>

LITERATURE CITED

- Bates, H. W. 1889. *In* Biologia Centrali Americana, Insecta, Coleoptera, Dynastidae, Cetoniidae, suppl. Volume 2, Pt. 2. pp. 337-416, pls. xix-xxiv.
- Blackwelder, R. E. 1939. Fourth supplement 1933 to 1938 (inclusive) to the Leng catalogue of Coleoptera of America, north of Mexico. Mount Vernon, New York.
- Blackwelder, R. E. 1944. Checklist of the Coleopterous Insects of Mexico, Central America and the West Indies, and South America. Part 2. Bull. Smith. Inst., 185: 189-341.
- Blanchard, C. É. 1850. Muséum d'Histoire Naturelle de Paris. Catalogue de la collection entomologique. Classe des insectes. Ordre des coléoptères, 1: 1-128. Paris.
- Brown. 1930. Studies in the Scarabaeidae (IV). Can. Entomol., 42: 2-6.
- Burmeister, H. C. C. 1842. Handbuch der entomologie (Coleoptera Lamellicornia Melitophila). Volume 3, 826 pp. Berlin.
- Casey, T. L. 1915. A review of the American species of Rutelinae, Dynastinae and Cetoniinae. Memoirs on the Coleoptera, 6: 1-394.
- Chevrolat, L. A. A. 1835. Coléoptères de Mexique. [p. 107]. Strasbourg.
- Dejean, P. F. M. A. 1837 (1836). Catalogue des coléoptères de la collection de M. le compte Dejean. Troisième édition, revue, corrigée et augmentée, livr. 1-4: 1-468. Paris.
- Eschscholtz, J. F. 1822. Entomographien, Erste Lieferung. 128 pp. Berlin.
- Fabricius, J. C. 1775. Systema entomologiae. 30 + 832 pp. Lipsiae.
- Fabricius, J. C. 1801. Systema eleutheratorum. 2. 687 pp. Kiliae.
- Fall, H. C. 1905. New species of Coleoptera, chiefly from the southwest. Canad. Entomol., 37: 270-276.
- von Frölich, J. A. 1792. Bemerkungen über einige seltene Käfer aus der Insecten-Sammlung des Hr. Rudolph in Erlangen. Naturforscher, 26: 68-165.
- Gmelin, J. F. 1790. Linne's Systema Naturae . . . edit 13. 1: 1517-2224.
- Gory, H. L. & A. R. Percheron. 1833. Monographie des cétoines et genres voisins, format, dans les familles naturelles de Latreille, la division des scarabées mélitophiles. 4 pp., 77 pls. Paris.
- Gyllenhal, L. 1817. *In* Schönherr, Appendix ad synonymia insectorum. 1: 1-266.
- Haldeman, S. S. 1852. Insects, *In* Stansbury, Exploration and survey of the valley of the Great Salt Lake of Utah . . . pp. 366-378. Washington.

- Horn, G. H. 1880. Synopsis of the *Euphoriae* of the United States. Proc. Amer. Philos. Soc., XVIII: 397–408.
- Janson, O. E. 1875. Descriptions of three new species of American Cetoniidae. Cist. Entomol., 1: 373–376.
- Janson, O. E. 1878. Notices of new or little known Cetoniidae (no. 4). Cist. Entomol., 2: 299–304.
- Janson, O. E. 1881. Descriptions of new American Cetoniidae. (Part II). Cist. Entomol., 2: 581–585.
- Klages, E. A. 1894. *Euphoria inda* var. *nigripennis*. Entomol. News, 5: 198.
- Knaus. 1916. A Kansas variety of *Euphoria herbacea*. Bull. Brooklyn Entomol. Soc., 11: 84.
- Landin, B. O. 1956. The Linnean species of *Lamellicornia* described in "Systema Naturae," Ed. X (1758). (Col.). Entomol. Tidskr., 77: 1–17.
- LeConte, J. L. 1853. Descriptions of some new Coleoptera from Texas, chiefly collected by the Mexican Boundary Commission. Proc. Acad. Nat. Sci. Philadelphia, 6: 439–448.
- LeConte, J. L. 1861. Notes on the coleopterous fauna of Lower California. Proc. Acad. Nat. Sci. Philadelphia, 13: 335–338.
- Linnaeus, C. 1760. Systema naturae . . . ed. 11. Volume 1, 823 pp. Halae Magdeburgicae.
- Linnaeus, C. 1790. See Gmelin, 1790.
- Nonfried, A. F. 1894. Beschreibungen neuer Lamellicorner, Buprestiden und Cerambyciden aus Central- und Süd-Amerika. Entomol. Nachrichten, 20: 129–142.
- Olivier, A. G. 1789. Entomologie, ou histoire naturelle des insectes, avec leurs caractères génériques et spécifiques, leur description, leur synonymie, et leur figure enluminée. Coléoptères. Volume 1. [Genera separately paged]. Paris.
- Pallas, P. S. 1781. Icones insectorum praesertim Russiae Sibiriaeque peculiarum, quae collegit et descriptionibus illustravit. 1: 1–56. Erlangae.
- Robinson, M. 1937. A new *Euphoria* from Texas (Coleoptera: Scarabaeidae). Entomol. News, 48: 163.
- Say, T. 1823. Descriptions of coleopterous insects collected in the late expedition to the Rocky Mountains, performed by order of Mr. Calhoun, Secretary of War, under the command of Major Long. Journ. Acad. Nat. Sci. Philadelphia, 3: 239–282.
- Say, T. 1825. Descriptions of new species of coleopterous insects inhabiting the United States. Journ. Acad. Nat. Sci. Philadelphia, 5: 160–204.
- Schaeffer, C. F. A. 1907. New Scarabaeidae. Journ. New York Entomol. Soc., 15: 60–75.
- Schaufuss, L. W. 1863. Revision und Ergänzungen zu den von mir beschriebenen Käfer-arten I. Sitzungs-Berichte der Naturwissenschaftlichen Gessellschaft Isis zu Dresden. pp. 113–118.
- Schaum, H. R. 1841. Analecta entomologica. Halis Saxonum.
- Schaum, H. R. 1844. Observations critiques sur la famille des lamellicornes mélitophiles. Ann. Soc. Entomol. France, ser. 2 2: 333–426, illus.
- Schaum, H. R. 1849. Observations critiques sur la famille des lamellicornes mélitophiles. (2e partie). Ann. Soc. Entomol. France, ser. 2 7: 241–295.
- Schein, H. 1950. Neue Cetoniden (Col.). Entomol. Arbeiten aus dem Museum G. Frey, 1: 273–276.
- Schenkling, S. 1921. Coleopterum catalogus, pars 72, Scarabaeidae: Cetoniinae, XXI: 1–431.
- Schoch, G. 1895. Die Genera und Species meiner Cetonidensammlung. I. Teil: Trib. Goliathidae, Gymnetidae, Madagassae, Schizorrhinidae. pp. 1–148. Zurich.
- Schoch, G. 1897. Nachtrag IV zu Schoch: Genera und Species meiner Cetoniden-Sammlung. Mitth. Schweizerischen Entomol. Ges., 9: 451–477.
- Sharp, D. 1877. Description of some new species of beetles (Scarabaeidae) from Central America. Journ. Linn. Soc. Zool., 13: 129–138.
- Thomson. 1878. Typi cetonidarum suis de typi monommidarium et de typi nilionidarum musaei Thomsoniani. pp. 1–37, 3–4, 41–44. Paris.
- Voet. 1778. Catalogus systematicus coleopterorum, Volume 2. La Haye.
- Weber. 1801. Observations entomologicae, continentes novorum quae condidit generum characteres, et nuper detectarum specierum descriptiones. 116 pp. Kiliae.

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